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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,887	11/13/2001	Stefan Wode	200-080	6440

7590

09/26/2003

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EXAMINER

KENNY, STEPHEN

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 09/26/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,887

Applicant(s)

WODE, STEFAN

Examiner

Stephen J Kenny

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Schlei et al. (EP 0548627) in view of Anderson et al. (US Patent No Re. 33,714).

Regarding claim 1, Schlei discloses a method for attaching a tubular piece of elastomeric material to a connecting part comprising: positioning a metal clamping ring around a tubular piece & a connecting part; radially applying a clamping force to said ring to reduce the diameter of said ring and thereby tightly clamping said tubular piece on said connecting part; detecting the radial force developed during the clamping operation between said clamping ring and said tubular piece (page 4, claims 1, & 2); observing and measuring a force/displacement curve during said clamping operation (Schlei discloses "detecting" said force/displacement, which the examiner interprets to be the equivalent of plotting a curve, graph, or even tabulating values of force vs. displacement); and utilizing a characteristic feature of said force/displacement curve as a basis for a criterion for switching off the application of said clamping force (page 4, claim 2). Schlei does not explicitly state that the force being measured is the radial (or crimping) force.

Anderson discloses performing a crimping operation wherein the radial/crimping force is measured (column 1, lines 54-60). Measuring the crimping force is advantageous because it accurately indicates when a crimping operation is completed, thus avoiding under or over crimped unions. Therefore it would have been obvious to one of ordinary skill in the art at the

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time the invention was made to perform a crimping operation as disclosed by Schlei while measuring the crimping force as taught by Anderson in order to realize the advantages discussed above.

Regarding claim 2, Schlei discloses the tubular piece is a resilient member of an air spring & connecting part is a cover or piston of an air spring (page 4, claim 1 preamble).

Regarding claims 3 & 5, Schlei discloses that the clamping operation is terminated after the force reaches a predetermined limit value, which is the equivalent of a "defined maximum of a curve" (as required in claim 3) or "turning point" of a curve (as required in claim 2).

Regarding claims 4 & 8, it would require merely routine skill in the art to read a plot of Schlei's measured data to determine if the magnitude of the parameters measured where beyond a specified threshold; and it is inherent that the clamping force is radially applied to said ring with clamping jaws having a diameter corresponding to the diameter of the clamping ring.

Regarding claim 6, Schlei discloses the instant invention as discussed above. Upon completion of the clamping operation, it would be a readily obvious step to inspect the connection to ensure that the predetermined limit value lies within a certain tolerance. This is a necessary step, and would be readily known and performed by an artisan of ordinary skill in the art, to ensure the quality and effectiveness of the connection. In fact, by Schlei stating that the clamping operation is terminated once a predetermined limit value has been reached, determining whether the force/displacement value is within a certain tolerance is met *a priori*. In other words, if the clamping operation terminates once a designated parameter (e.g. force/displacement) reaches a predetermined limit value, and the clamping operation has

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terminated, then the predetermined limit value must have been reached – and therefore the parameter must be within a certain tolerance.

Regarding claim 7, Schlei discloses a connecting part of plastic deformable material (elastomeric material as stated in claim 1) having a failure elongation which is not exceeded (page 4, claim 2). Schlei discloses that the clamping force is terminated at a predetermined limit value. The examiner interprets this predetermined limit value to be the failure elongation point. Since it is known that plastic deformation occurs at the point of material failure (i.e. where the stress vs. strain curve is no longer linear), resulting in a compromised structural integrity, and in this case, a faulty connection. Therefore terminating the clamping force before the failure elongation point would result in a more uniform (i.e. the connector circumference is uniformly deformed radially inward) connection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Response to Arguments

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Schlei and Anderson disclose measuring data (e.g. the radial/crimping force) during a crimping operation; the act of plotting the curve of the data measured by Schlei/Anderson is not considered an inventive step. Forming a graph of known data requires merely routine skill in the art, and would be readily available and performed by an artisan of ordinary skill.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J Kenny whose telephone number is 703-306-0359. The examiner can normally be reached on mon - fri 9am - 5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 703-308-1513. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

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SK

9/20/03


GREGORY VIDOVICH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700